INFORMATION COLLECTION REQUEST

SUPPORTING STATEMENT

Information Requirements for Nonroad Diesel Engines (Nonroad Large SI Engines and Marine Diesel Engines) (Proposed Rule)

Spring 2003

Assessment and Standards Division
Office of Transportation and Air Quality
Office of Air and Radiation
U.S. Environmental Protection Agency

Information Collection Request

1(a). Title

Information Requirements for Nonroad Diesel Engines

ICR Tracking Number: 1897.05

1(b). Short Characterization

The Clean Air Act authorizes EPA to adopt emission standards for new nonroad engines. We need information to verify that manufacturers comply with emission standards—before production begins, during production, and after units have been placed into service. In the rulemaking we require manufacturers to generate or retain information to demonstrate that engines comply with emission standards.

Manufacturers generally send us the data they collected and keep these records and other pertinent information. We may request to see any of these records.

We and the regulated companies will use the data exclusively to ensure compliance with emission standards. Information such as engine family, total numbers of engines built, and emission rates for specific pollutants, are examples of what we require.

This ICR is a revision to the existing information collection approved under OMB control number 2060-0460. The revisions generally include new standards, testing, and reporting requirements for nonroad diesel engines.

2. Need For and Use of the Collection

2(a). Need/Authority for the Collection

The data we require in this ICR is necessary to comply with Title II of the Clean Air Act, as amended in 1990. The Act directs us to adopt regulations for nonroad engines if we determine those engines contribute significantly to air pollution in the U.S. Now that we have made this determination, the Act directs us to set emission standards for any category of nonroad engines that contributes to air quality nonattainment in two or more areas in the U.S. We can only meet the requirements of the Act by collecting data from the regulated industry. Also, we will only have an effective program if we know that these engines maintain their certified emission level throughout their operating lives.

2(b). Use/Users of the Data

We will oversee the certification process and maintain the program database. We will use

the data items to verify compliance with the following requirements associated with the new emission standards.

- determine whether or not a prototype engine may adequately represent an engine family.
- ensure compliance of production-line engines.
- issue a recall to correct a noncompliant family of engines.
- confirm actual emission benefits gained by the program.
- ensure proper maintenance and setting of physically adjustable parameters.
- aid in the production projections to randomly select the engines which are to undergo testing.
- determine whether a prototype or freshly manufactured engine should be issued a certificate of conformity.
- ensure that durability of emission controls is consistent with the manufacturer's stated useful life.
- ensure control of emissions across the range of engine operation expected in the normal course of its lifetime
- manage the importation of engines that meet requirements

3. Nonduplication, Consultations, and other Collection Criteria

3(a). Nonduplication

Emissions from the engines and vehicles subject to the new emission standards have been largely unregulated in the United States. Moreover, state and local governments are preempted from adopting emission standards for many of the engines covered by this rulemaking. For this reason, the information requested under this ICR is not available from other sources.

3(b). Public Notice Required Prior to ICR Submission to OMB

We will publish a proposed rulemaking in the *Federal Register* regarding emission standards for nonroad diesel engines. The proposed rule will include invitations to comment on the ICR. We have already received comments on several issues related to information collection as part of our effort to develop the proposal. These comments and our responses are reflected in the proposal and will be addressed in the summary and analysis of comments and this ICR for the final rule.

3(c) Consultations

We have met with companies that will be subject to the new emission standards. These contacts are summarized in Table 1.

Table 1
Industry Contacts Regarding Information Collection

Date	Contact
July 30-31, 2002	William Passie- Caterpillar passie_william_c@cat.com
August 13, 2002	Tom Haley- Vermeer (641) 628-3141
September 16, 2002 SER Outreach Meeting #1	W. Josh Sutherland- Wisconsin Motors (901) 229-0715
	Eric Ramsey- Sweepster, Inc. (734) 996-9116 x391
	Darrin Drollinger- Association of Equipment Manufacturers (AEM) (312) 321-1470
November 13, 2002 SER Outreach Meeting #2	Bob Ball, Mike Spear, Phil Jenkins- Sweepster, Inc. (734) 996-9116
	Sensors, Inc.
November 12, 2002	Bob Ball, Mike Spear- Sweepster, Inc. (Site visit) (734) 996-9116
March 21, 2003	Engine Manufacturers Association (EMA) Meeting

3(d) Effects of Less Frequent Collection

Annual reporting for certifying engine families is necessary to align with the regulatory requirement to certify engine families every year. Quarterly reporting of test results from production-line testing is necessary to allow adequate response to any problem that may arise.

3(e) General Guidelines

This ICR complies with the general guidelines, except for the requirement to retain records for up to eight years, as described in 4(b)(ii) below.

3(f) Confidentiality

We hold information from the engine manufacturers as confidential until the associated engines are available for purchase. Manufacturers may submit proprietary information, consisting generally of sales projections and certain sensitive technical descriptions. We grant confidentiality in accordance with the Freedom of Information Act, EPA regulations at 40 CFR part 2, subpart B, and class determinations issued by our Office of General Council.

3(g) Sensitive Questions

We do not ask sensitive questions. This collection complies with The Privacy Act and OMB Circular A-108.

4. Respondents and Information Requested

4(a) Respondents/NAICS and SIC Codes

The respondents are generally involved in the industries shown in Table 2.

Table 2
NAICS and SIC Codes for Respondent Categories

Respondent Categories	NAICS Codes[a]	SIC Codes[b]
Manufacturers of new nonroad diesel engines	333618	3519
Manufacturers of farm machinery and equipment	333111	3523
Manufacturers of lawn and garden tractors (home)	333112	3524
Manufacturers of industrial trucks	333924	3537
Manufacturers of construction machinery	333120	3531
Manufacturers of mining machinery and equipment	333131	3532
Manufacturers of oil and gas field machinery and equipment	333132	3533

[a]North American Industry Classification System (NAICS)
[b]Standard Industrial Classification (SIC) system code.

4(b) Respondents and Information Requested

(i) Data Items

Manufacturers must send us an application for certification, including emission data and other descriptive information. In addition, manufacturers create engine labels and send us information in some cases regarding engines that are exempt from emission standards or other specific requirements.

(ii). Respondent Activities

Companies retain records as hard copy and may also reduce the information to microfilm, computer disks, etc. We require very little submission of information to process applications for certification. This reduces the resource burden, both for the industry and for us. However, because we don't have the information on file, we depend on manufacturers to retain the records to allow us to verify compliance throughout the useful life of the engines. Eight years is sufficient time for this information for most engines. Any investigation of in-use engines generally does not start until three or more years after the manufacturer completes the application for certification.

The certification information includes records related to the deterioration of an engine's emission controls with age. Some manufacturers also participate in emission-credit programs, in which they produce some engines with emissions above the standard and others with emissions below the standard. This is an optional program, so we don't include specific estimates related to any additional reporting or recordkeeping for generating or using emission credits.

Manufacturers must also report to us if they learn that a substantial number of their engines have emission-related defects. This is normally not a requirement to collect information, but if manufacturers learn that there is or might be a substantial number of emission-related defects, then they must send us information describing the defects.

Many companies import engines. First, some companies import engines that are not subject to emission standards; they must, however, fill out a form documenting the status of their engine and the reason for their exemption. Since most engines are now covered by emission standards, this has become much less common. It is now generally limited to engines used for stationary, underground mining, and hobby applications. Second, some companies import engines as Independent Commercial Importers, meaning that they do their own testing instead of importing engines that have been certified by engine manufacturers.

We have also adopted special provisions that allow equipment manufacturers to sell equipment with uncertified engines (or engines certified to less stringent standards). This involves a one-time notification before using this flexibility and annual reporting to document compliance with these provisions. This is a voluntary program that substantially reduces the costs of compliance for engine manufacturers, so we have not included specific costs related to these reporting or recordkeeping activities here.

All reports, submissions, notifications, and requests for approval must be addressed to: Manager, Engine Programs Group (6405-J), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., Washington, DC 20460. Respondents must submit information in an approved EPA information format.

5. The Information Collected--Agency Activities, Collection Methodology, and Information Management

5 (a) Agency Activities

Our certification and tracking process involves reviewing applications and emission data from engine and vehicle manufacturers. From this data, we issue certificates of conformity, and may confirm that production and in-use engines continue to comply with standards. We may also select families to be tested in a given production year and require additional testing, based on an analysis of the submitted data.

5 (b) Collection Methodology and Management

We currently use computers extensively to collect information from vehicle manufacturers. Based on this approach as a model, much routine information (test results, projections) can be electronically transmitted directly from the manufacturers to our computer database. We expect to publish this information on our website once certified engines go into production (www.epa.gov/otaq/).

5 (c) Small-Entity Flexibility

We have included provisions to ease the compliance burden on small businesses. For instance, some small manufacturers of nonroad diesel engines will be allowed the option to delay compliance with emission standards. For small manufacturers of nonroad diesel equipment, use of a limited number of previous Tier engines will be permitted.

5(d) Collection Schedule

The principal reporting requirements are associated with certification to the emission standards, which begin to apply in the 2010 time frame, depending on the size of the engine. Reporting requirements therefore do not begin until the end of the preceding year at the earliest. Annual reporting is based on the beginning of the model year, which can vary for each manufacturer and for each engine family.

6. Estimating Burden and Cost of the Collection

Engine manufacturers comply with emission standards by submitting an application for certification, which obligates them to do a certain amount of testing to show they comply with the standards. The following discussion develops burden and cost estimates for the first three years of the program.

6 (a) Estimating Respondent Burden

The estimates of respondent burden utilize data from the affected industries or commercially available databases. Burden hours per engine family are based upon established hour amounts for engine families, as published in the "Application for Motor Vehicle Emission Certification and Fuel Economy Labeling" (OMB No. 2060-0104).

The burden for certification testing is generally based on conducting four engine tests for each engine family, then using that test data for several years. The estimated cost for full certification testing, including durability demonstration testing, is $15,000 per engine test (combining labor and O&M expenses). The manufacturer's application for certification involves an extensive effort the first year, followed by relatively little effort in subsequent years. We estimate that manufacturers will conduct new certification testing every five years; the costs have been estimated on an annual average basis.

In addition to testing, manufacturers must prepare the application for certification and maintain appropriate records. We have estimated the cost of these combined activities, which

include engineering and clerical effort, to be $10,000 per engine family per certification cycle. As with the testing costs, we are presenting annual average costs.

Manufacturers are also expected to conduct testing on their engines after they have been placed into service to confirm that they continue to meet emission standards. Testing selected families using field-testing equipment instead of full laboratory equipment allows for substantial data collection for much lower costs than would be incurred by pulling engines out and testing them on a dynamometer. We base the estimated costs on testing 10 percent of engine families, at approximately $8,000 per family. This allows for testing multiple engines in each family.

These burden estimates apply equally whether the manufacturer conducts the required activities, or if the manufacturer hires a third party for some of these activities.

6 (b) Estimating Respondent Costs

(i) Estimating Labor Costs

Labor rates on a per-hour basis, are taken from the Bureau of Labor Statistics web site at http://stats.bls.gov/news.release/ecec.t12.htm (accessed November 24, 2000). Technical labor is $42.89/hr, managerial labor is $65.19/hr, clerical labor is $27.11/hr. Labor rates were multiplied by 1.5 to account for fringe benefits and other overhead expenses.

(ii) Estimating Operations and Maintenance Costs

Operation and maintenance costs include expenses related to engine testing. Costs are for laboratory time, the use of test equipment, engine parts, fuel and other supplies, and fabrication of test tools and fixtures. Direct labor costs and operations and maintenance costs combine for the total test costs described above.

(iii) Capital/Start-up Costs

Companies required to conduct testing generally either have testing facilities or are expected to conduct testing at a contractor's laboratory. Thus, no capital or startup costs are anticipated for purchasing emission testing equipment.

(iv) Annualizing Capital Costs

With no estimated capital or start-up costs, there is no need to annualize these costs.

6 (c) Estimating Agency Burden and Cost

Our Engine Programs Compliance Group administers emission certification programs. This group has approximately 17 full-time employees. We project 50 hours per week of staff time (at $40 per hour, loaded) to manage engine compliance programs related to new emission standards. This comes to approximately 2,500 hours or $100,000 per year to oversee the

requirements of the final rule.

6 (d) Estimating the Respondent Universe and Total Burden and Costs

The following tables shows the labor and other costs associated with meeting the new requirements for each engine family. This includes certification costs, plus the cost of any additional testing. Per-family costs are multiplied by the number of engine families and added to estimated capital costs (if any) to arrive at an estimated total cost.

Table 3
Annual Respondent Burden and Cost—Nonroad Diesel Engine Manufacturers

Information Collection Activity	Average annual burden and cost per family						# of Families	Annualized Capital & Startup cost	Total Hours and Costs	
	Mgr. @ $65/hr	Tech. @ $43/hr	Cler. @ $27/hr	Hours per family	Labor cost per family	O&M Cost			Total Hours/yr	Total Cost/yr
Cert. application*	2	36	6	44	$1,840	$0	665	$0	29,260	$2,657,340
Recordkeeping	0.2	2.2	2	4.4	$162	$0	665	$0	2,926	$12,107,464
Cert./durability testing		168		168	$7,224	$4,776	665	$0	111,720	$7,980,000
Selective enforcement audits	5	100	10	115	$4,895	$75,105	10	$0	1,150	$800,000
In-use testing	5	60	5	70	$3,040	$4,960	67	$0	4,655	$532,000
Defect reporting	6	40	80	126	$830	$0	67	$0	8,379	$283,955
Subtotal				Total O&M cost =		$4,256,930	—	$0	158,090	$24,360,759

*Costs for certification application include fees assessed at $2,156 per family.

Table 4
Average Annual Respondent Burden and Cost—Importers

Information Collection Activity	Average annual burden and cost per family						# of Families	Annualized Capital & Startup cost	Total Hours and Costs	
	Mgr. @ $65/hr	Tech. @ $43/hr	Cler. @ $27/hr	Hours per family	Labor cost per family	O&M Cost			Total Hours/yr	Total Cost/yr
Reporting	1	0	6.5	7.5	$241	$0	15	$0	113	$3,608
Recordkeeping	1	0	6.5	7.5	$241	$0	15	$0	113	$3,608
Testing	0	16	0	16	$688	$10,000	15	$0	240	$160,320
Exemption forms (3520-21)	0	0	0.5	0.5	$14	$0	125	$0	63	$1,688
Subtotal				Total O&M cost =		$150,000	—	$0	529	$169,224

6 (e) Bottom-Line Burden Hours and Cost Tables

(i) Respondent Tally

Bottom-line burden and cost for the first three years of the rulemaking are shown in Table 5. The table shows industry totals and average values for each respondent by category. These estimated costs include startup expenses (for example, the purchase of emission sampling equipment and new recordkeeping software).

Table 5
Summary of Bottom-line Burden Hours and Cost

Affected Entities	Number of Respondents	Industry Totals				Average per Respondent	
		Annualized Capital Costs	Total O&M Costs per Year	Total Hours per Year	Total Costs per Year	Total Hours per Year	Total Costs per Year
Nonroad diesel engine manufacturers	55	$0	$4,256,930	158,090	$12,360,759	2,874	$224,741
Independent Commercial Importers	15	$0	$150,000	465	$167,535	31	$11,169
Exempt importers	25	$0	$0	63	$1,688	3	$68
Total	95	0	4,406,930	158,618	12,529,982	1,670	$131,895

(ii) Agency Tally

Our estimated burden is approximately 2,500 hours or per year (or $100,000) to oversee the requirements of the final rule, as described in Section 6(c).

6 (f) Burden Statement

As shown in Table 5, these new requirements account for almost 160,000 burden hours and almost $13 million dollars in cost annually. These estimates include time to conduct testing, prepare applications, prepare and submit reports, and record and keep required information.

The annual public reporting and recordkeeping burden for this collection of information is estimated to average 1,670 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and

providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this ICR under Docket ID No. OAR-2003-0012, which is available for public viewing at the Air Docket in the EPA Docket Center (EPA/DC), EPA West, Room B102, 1301 Constitution Ave., NW, Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room and the Air Docket is (202) 566-1744. An electronic version of the public docket is available through EPA Dockets (EDOCKET) at http://www.epa.gov/edocket. EDOCKET is available for submitting or viewing public comments, accessing the index listing of the contents of the public docket, and accessing those documents in the public docket that are available electronically. Once in the system, select “search,” then key in the docket ID number identified above. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, DC 20503, Attention: Desk Office for EPA. Please include the EPA Docket ID No. (OAR-2003-0012) and OMB control number (2060-0460) in any correspondence.

6 (g) Reason for Change in Burden

We are proposing emission standards for nonroad diesel engines. This information collection request updates the estimated burden to reflect the additional effort required to meet the new standards and consolidates all the various recordkeeping and reporting items for these engines.

Appendix to ICR #1897.05

Original ICR (#1897.02) for marine diesel engines; approved Oct. 12, 2001:

Summary of Bottom-line Burden Hours and Cost

Affected Entities	Number of Respondents	Industry Totals				Average per Respondent	
		Annualized Capital Costs	Total O&M Costs per Year	Total Hours per Year	Total Costs per Year	Total Hours per Year	Total Costs per Year
Manufacturers and Marinizers	12	$0	$200,000	20,280	$2,453,632	1,690	$204,469
Dressers	20	$0	$0	40	$1,840	2	$92
Rebuilders	200	$0	$0	1,200	$38,800	6	$194
Total	232	$0	$200,000	21,520	$2,494,272	93	$10,751

ICR supplement (#1897.04) for multiple engine categories, approved January 31, 2003:

Summary of Bottom-line Burden Hours and Cost

Affected Entities	Number of Respondents	Industry Totals				Average per Respondent	
		Annualized Capital Costs	Total O&M Costs per Year	Total Hours per Year	Total Costs per Year	Total Hours per Year	Total Costs per Year
Large SI engine manufacturers	12	$174,419	$2,507,790	21,986	$3,617,683	1,832	$301,474
Recreational marine diesel engine manufacturers	12	$0	$870,238	7,273	$1,178,061	606	$98,172
Category 3 marine diesel engine manufacturers	6	$0	$67,104	1,812	$144,022	302	$24,004
Engine rebuilders	200	$0	$0	1,200	$38,800	6	$194
Total	230	$174,419	$3,445,132	32,271	$4,978,566	140	$21,646